

Claims

1. Method for producing a charge image on an intermediate carrier (30) of an electrophotographic printer or copier,
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in which a character generator (34) having a multiplicity of light sources (36) arranged in at least one row is used,
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in which the at least one row of light sources is imaged onto the intermediate carrier (30) as an exposure line (56), and the intermediate carrier (30) can be displaced essentially transverse to the exposure line relative to the character generator, and
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in which the temporal beginning of the illumination phases of groups (36) of light sources is selected such that deviations of the exposure line (56) from a target line (58) are minimized,
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whereby a separate functional unit (38) is provided for each light source group (36) for the control of the light sources
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whereby the functional unit (38) is connected with a central control unit (40), comprises an address decoder, possesses an address via which it can be specifically activated, and comprises a control unit (46),
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and whereby the light sources of each group (36) are controlled by a control unit (46) assigned separately to the functional unit (38).
2. Method according to claim 1, in which the control units (46) of the functional units (38) control the light source groups (36) independently of a clock pulse that is predetermined by a line period provided for the processing of a printed page.

3. Method according to one of the preceding claims, in which the control unit (46) of each functional unit (38) is controlled by the central control unit (40) in order to initiate the illumination phase of the associated light source group (36).
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4. Method according to claim 3, in which the central control unit (40) gives the control unit (46) of each functional unit (38) an individual start command for controlling the associated light source group (36), the time of
10 the start command being selected such that a deviation of the exposure line segment corresponding to the light source group (36) from the target line (58) is minimized.
5. Method according to one of the preceding claims, in which the functional
15 units (38) are arranged operatively in a row, and receive data and/or a clock signal via an input interface (48), and, except for the last functional unit in the row, forward these data and/or this signal to the next functional unit (38) in the row via an output interface (50).
- 20 6. Method according to claim 5, in which between the reception and the forwarding of the data and/or of the clock signal there is situated a system clock in which the clock signal is reproduced.
7. Method according to one of the preceding claims, in which data are stored
25 in a volatile memory (44) that is separately assigned to the functional unit (38).
8. Method according to Claim 7, in which the data comprise the print data for the segments, corresponding to the light source group (36), of a plurality of
30 lines to be printed.

9. The method according to claim 7 or 8, in which the data comprise a correction parameter for each light source of the group (36) that represents its individual illumination intensity.
- 5 10. Device for producing a charge image on an intermediate carrier (30) of an electrophotographic printer or copier,
- having a character generator (34) that has a multiplicity of light sources arranged in at least one row,
- 10 in which the at least one light source row is imaged as an exposure line (56) onto the intermediate carrier (30), and the intermediate carrier (30) can be displaced essentially transverse to the exposure line (56) relative to the character generator (34), and
- 15 in which the temporal beginning of the illumination phases of groups (36) of light sources can be selected such that deviations of the exposure line (56) from a target line (58) are minimized,
- 20 a separate functional unit (38) being provided for each light source group (36) for the controlling of the light sources,
- in which the functional unit (38) is connected with a central control unit (40), comprises an address decoder, possesses an address via which it can
- 25 be specifically activated, and comprises a control unit (46),
- and in which the light sources of each group (36) being controlled by a control unit (46) assigned separately to the functional unit (38).
- 30 11. Device according to claim 10, in which the light source groups (36) can each be controlled by the control unit (46) of the associated functional unit

(38), independently of a clock pulse that is predetermined by a line period provided for the processing of a print line.

12. Device according to claim 10 or 11, in which the control unit (46) of each functional unit (38) can be controlled by the central control unit (40) in order to initiate the illumination phase of the associated light source group (36).

13. Device according to claim 12, in which the central control unit (40) is programmed in such a way that it gives the control unit (46) of each functional unit (38) an individual start command for controlling the associated light source group (36), the time of the start command being selected such that a deviation of the exposure line segment corresponding to the light source group from the target line (58) is minimized.

14. Device according to one of claims 10 to 13, in which the functional units (38) are arranged operatively in a row, the functional units (38) having an input interface (48) for receiving data and/or a clock signal, and the functional units (38), with the exception of the last functional unit (38) in the row, having an output interface (50) for forwarding the data and/or the clock signal to the following functional unit (38) in the row.

15. Device according to one of claims 10 to 14, in which the functional units (38) have a volatile memory (44).